

Amendments to the Claim:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A kit for directly detecting a RS virus infected cell or an RS virus biological particle present in a sample in an amount of less than about 2000 cells or particles per microlitre (10^{-6} litre), said kit comprising

i) a solid support, and
ii) a plurality of a first targeting species bound to the solid support, said targeting species being capable of directly binding a predetermined RS virus ~~related biological~~ infected cell or biological particle when it is present in a sample that is brought into contact with the solid support, and

iii) a conjugate comprising a polymeric carrier molecule bound to

a) at least one targeting species capable of directly binding a predetermined RS virus ~~related biological~~ infected cell or biological particle when it is present in a sample that is brought into contact with the solid support, and

b) at least one labelling species,

iv) an application zone for applying the sample comprising a RS virus ~~related biological~~ infected cell or biological particle, said zone comprising at least one of said conjugate, said conjugate being movable, and said application zone being in liquid contact with

v) a detection zone, separate from said application zone, for detecting the presence, amount or concentration of said at least one conjugate, said zone further comprising at least one targeting species bound to the solid support.

2 (previously presented).. Kit according to claim 1, wherein

the conjugate further comprises

ii) at least one connecting moiety foreign to the polymeric carrier molecule, and covalently attaching it to a targeting species or a labelling species.

3 (previously presented). Kit according to claim 2, wherein the polymeric carrier molecule comprises connecting moieties in an amount of from about 5 to about 5,000 μ moles per gram of polymeric carrier.

4-7 (cancelled).

8 (previously presented). Kit according to claim 1, wherein the targeting species is selected from monoclonal and polyclonal antibodies.

9 (previously presented). Kit according to claim 8, wherein the targeting species is an antibody recognising a nucleoprotein of RS virus or a glycoprotein of RS virus.

10 (previously presented). Kit according to claim 1, wherein the labelling species is selected from the group consisting of proteins; enzymes; toxins; drugs; dyes; fluorescent, luminescent, phosphorescent and other light-emitting substances; cells; metal-chelating substances; substances labelled with a radioactive isotope; and substances labelled with a heavy atom.

11 (previously presented). Kit according to claim 1, wherein the labelling species is selected from the group consisting of ferritin, phycoerythrins, phycocyanins, phycobilins, horseradish peroxidase, alkaline phosphatase, glucose oxidases, galactosidases, ureases, iminodiacetic acid, ethylenediaminetetraacetic acid, diethylenetriaminepentaacetic acid, and desferrioxamine B.

12 (previously presented). Kit according to claim 48, wherein the targeting species attached to said molecule of conjugate are identical.

13 (previously presented). Kit according to claim 48,

wherein the targeting species attached to said molecule of conjugate are non-identical.

14 (previously presented). Kit according to claim 2, wherein the polymeric carrier is selected from the group consisting of natural and synthetic polysaccharides; homopoly amino acids; natural and synthetic polypeptides and proteins; and synthetic polymers having nucleophilic functional groups.

15 (previously presented). Kit according to claim 2, wherein the polymeric carrier is selected from the group consisting of polyvinyl alcohols, polyallyl alcohols, polyethylene glycols and substituted polyacrylates.

16 (previously presented). Kit according to claim 2, wherein the polymeric carrier is selected from the group consisting of dextrans, carboxymethyl-dextrans, starches, hydroxyethyl-starches, hydroxypropyl-starches, glycogen, agarose derivatives, cellulose derivatives and natural gums.

17 (previously presented). Kit according to claim 16, wherein the polymeric carrier is a dextran.

18 (previously presented). Kit according to claim 16, wherein the polymeric carrier is selected from the group consisting of hydroxyethyl-celluloses and hydroxypropyl-celluloses.

19 (previously presented). Kit according to claim 1, said kit being a dip-stick.

20 (previously presented). Kit according to claim 1, said kit being adapted for a microsystem.

21 (previously presented). Kit according to claim 1, further comprising means for detecting at least one inflammatory indicator.

22 (original). Kit according to claim 21, wherein the at least one inflammatory indicator is a cytokine.

23 (original). Kit according to claim 22, comprising means for detecting at least 3 different cytokines.

24 (previously presented). Method of detecting a predetermined RS virus infected cell or RS virus biological particle present in a sample, said method comprising the steps of

- i) providing a kit according to claim 1
- ii) contacting the sample with the kit of step i), and
- iii) detecting, in said detection zone, the presence of a conjugate binding the predetermined RS virus infected cell or RS virus biological particle,

wherein the detection of the conjugate is indicative of the presence of the RS virus infected cell or RS virus biological particle in the sample.

25 (original). Method according to claim 24, wherein the sample is a body fluid sample.

26 (original). Method according to claim 24, said kit further comprising means for detecting at least one predetermined inflammatory indicator.

27 (original). Method according to claim 26, wherein the inflammatory indicator is present in the sample in an amount of less than about 100 nanograms (100×10^{-9} grams) per millilitre (10^{-3} litre).

28 (previously presented). Method according to claim 24, wherein the polymeric carrier molecule comprises i) a plurality of at least one connecting moiety attached to polymeric carrier group, and ii) at least one molecular species selected from the group consisting of targeting species and labelling species, wherein each of the molecular species is attached to at least one connecting moiety attached to the polymeric carrier molecule.

29 (cancelled).

30 (previously presented). Method according to claim 24, wherein the labelling species is selected from the group consisting of proteins; enzymes; toxins; drugs; dyes; fluorescent, luminescent, phosphorescent and other light-emitting

substances; metal-chelating substances; substances labelled with a radioactive isotope; and substances labelled with a heavy atom.

31 (previously presented). Method according to claim 24, wherein the labelling species is selected from the group consisting of ferritin, phycoerythrins, phycocyanins, phycobilins, horseradish peroxidase, alkaline phosphatase, glucose oxidases, galactosidases, ureases, iminodiacetic acid, ethylenediaminetetraacetic acid, diethylenetriaminepentaacetic acid, and desferrioxamine B.

32 (previously presented). Method according to claim 24, wherein the polymeric carrier is selected from the group consisting of natural and synthetic polysaccharides; homopoly amino acids; natural and synthetic polypeptides and proteins; and synthetic polymers having nucleophilic functional groups.

33 (previously presented). Method according to claim 24, wherein the polymeric carrier is selected from the group consisting of polyvinyl alcohols, polyallyl alcohols, polyethylene glycols and substituted polyacrylates.

34 (previously presented). Method according to claim 24, wherein the polymeric carrier is selected from the group consisting of dextrans, carboxymethyl-dextrans, starches, hydroxyethyl-starches, hydroxypropyl-starches, glycogen, agarose derivatives, cellulose derivatives and natural gums.

35 (original). Method according to claim 34, wherein the polymeric carrier is a dextran.

36 (previously presented). Method according to claim 24, wherein the polymeric carrier is selected from the group consisting of hydroxyethyl-celluloses and hydroxypropyl-celluloses.

37 (previously presented). Method according to claim 26, wherein the predetermined inflammatory indicator is selected from the group consisting of agonists from the IL-1 system, autoantibodies against IL-1 α , sIL1-RI and sIL1-RII.

38 (previously presented). Method according to claim 26, wherein the predetermined inflammatory indicator is selected from the group consisting of agonists from the TNF α system.

39 (previously presented). Method according to claim 26, wherein the predetermined inflammatory indicator is selected from the group consisting of IL-6 and autoantibodies against IL-6.

40 (previously presented). Method according to claim 26, wherein the predetermined inflammatory indicator is selected from the group consisting of IL-12, sIL-4R, TNF β (LT), INF γ , IL-4, and IL-10.

41 (previously presented). Method according to claim 26, wherein the predetermined inflammatory indicator is selected from the group consisting of IL-2, RANTES, IL-8, sIL-2R, IL-18, IFN α , and eosinophil cationic protein.

42 (currently amended). A method for diagnosing a RS virus infectious condition in an individual, said method comprising the steps of

(a) providing a kit according to claim 1 for directly detecting a RS virus infected cell or RS virus biological particle present in a sample in an amount of less than about 2000 cells or particles per microlitre (10^{-6} litre), ~~said kit comprising~~

(b) contacting the sample with the kit of step (a)

(c) detecting, in the detection zone, the presence of a conjugate capable of binding the predetermined RS virus infected cell or RS virus biological particle, wherein the detection of the conjugate is indicative of the presence of the RS virus infected cell or RS virus biological particle in the sample and wherein detecting the presence of the RS virus infected cell or RS virus biological particle is indicative of an infectious condition, and

(d) diagnosing said infectious condition.

43 (previously presented). The method according to claim 42 further comprising the step of

detecting a predetermined inflammatory indicator present in a body fluid sample prior to
diagnosing said infectious condition.

44 (cancelled).

45 (previously presented). The kit according to claim 1 further comprising

vi) a positive control zone comprising means for generating a positive control confirming the transfer of at least part of said sample from said application zone to said detection zone.

46 (previously presented). The method of claim 24, said kit further comprising vi) a positive control zone comprising means for generating a positive control confirming the transfer of at least part of said sample from said application zone to said detection zone.

47 (previously presented). The method of claim 43, said kit further comprising vi) a positive control zone comprising means for generating a positive control confirming the transfer of at least part of said sample from said application zone to said detection zone.

48 (previously presented). The kit according to claim 1 where at least one molecule of said conjugate comprises a plurality of targeting species.

49 (previously presented). The kit of claim 1 in which at least one molecule of conjugate comprises a plurality of labeling species.

50 (previously presented). The kit of claim 49 in which the labeling species attached to said molecule are identical.

51 (previously presented). The kit of claim 1 in which the labeling species is a fluorescent substance.

52 (previously presented). The kit of claim 51 in which the labeling species is rhodamine.

53 (previously presented). The kit of claim 1 in which the polymeric carrier is a polysaccharide.

54 (previously presented). The kit of claim 53 in which the polymeric carrier is a polydextran.

55 (previously presented). The kit of claim 51 in which the polymeric carrier is a polysaccharide.

56 (currently amended). The kit of claim ~~52~~ 55 in which the polymeric carrier is a polydextran.

57 (previously presented). The kit of claim 1 in which the targeting species is an antibody.

58 (previously presented). The kit of claim 56 in which the targeting species is an antibody.

59 (new). The kit of claim 1 wherein said detection zone is free of said conjugate until said sample is applied, said sample causing the fluid movement of said conjugate from the application zone to the detection zone.

60 (new). The method of claim 24 wherein said detection zone is free of said conjugate until said sample is applied, said sample causing the fluid movement of said conjugate from the application zone to the detection zone.

61 (new). The kit of claim 1 wherein said conjugate has a predetermined peak molecular weight of from about 1,000 to about 40,000,000.

62 (new). The kit of claim 1 wherein said conjugate has a predetermined peak molecular weight of from about 1,000 to about 20,000.

63 (new). The kit of claim 1 wherein said conjugate has a predetermined peak molecular weight of from about 20,000 to about 80,000.

64 (new). The kit of claim 1 wherein said conjugate has a predetermined peak molecular weight of from about 80,000 to about 500,000.

65 (new). The kit of claim 1 wherein said conjugate has a

predetermined peak molecular weight of from about 500,000 to about 5,000,000.

66 (new). The kit of claim 61 wherein said conjugate has a predetermined peak molecular weight of from about 5,000,000 to about 40,000,000.

67 (new). The kit of claim 1 wherein said conjugate comprises non-cross-linked units of polymers and cross-linked polymer units.

68 (new). The kit of claim 1 wherein said conjugate is applied to the solid support followed by drying the solid support.

69 (new). The method of claim 24 wherein said conjugate has a predetermined peak molecular weight of from about 1,000 to about 40,000,000.

70 (new). The method of claim 24 wherein said conjugate has a predetermined peak molecular weight of from about 1,000 to about 20,000.

71 (new). The method of claim 24 wherein said conjugate has a predetermined peak molecular weight of from about 20,000 to about 80,000.

72 (new). The method of claim 24 wherein said conjugate has a predetermined peak molecular weight of from about 80,000 to about 500,000.

73 (new). The method of claim 24 wherein said conjugate has a predetermined peak molecular weight of from about 500,000 to about 5,000,000.

74 (new). The method of claim 24 wherein said conjugate has a predetermined peak molecular weight of from about 5,000,000 to about 40,000,000.

75 (new). The method of claim 24 wherein said conjugate comprises non-cross-linked units of polymers and cross-linked polymer units.

76 (new). The method of claim 24 wherein said conjugate is

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applied to the solid support followed by drying the solid support.